

Northwest

**Intermediate and Depot Level
Maintenance Integration Plan
Summary**

Issued

by

Pacific Northwest Integration Management Team

16 May 2001

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RECORD OF CHANGES

<u>CHANGE</u>	<u>PREPARED BY</u>	<u>APPROVAL</u>	<u>DATE</u>	<u>DESCRIPTION</u>	<u>SECTIONS AFFECTED</u>
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1. Executive Summary

The Navy strategy to reduce ship maintenance costs includes regionalization of functions and integration of I and D level maintenance systems. Consolidation of functions and organizations combined with standardization of processes provides the opportunity to reduce redundancy and related costs. In addition, flexibility can be enhanced based upon the expanded skill base and workload of the consolidated organization.

Puget Sound Naval Shipyard and Naval Intermediate Maintenance Facility, Pacific Northwest, are being directed to consolidate commands and to integrate I and D level ship maintenance in the region. The Commanding Officer of NAVIMFAC PNW will report to the Commanding Officer, Puget Sound Naval Shipyard, who will have an additional ADDU reporting requirement to CINCPACFLT via CNRNW. Consolidation of these two high performing commands is expected to provide the opportunity for even stronger performance and leadership for the Pacific Northwest.

On 30 March 2001 a CNO Executive Board (CEB) meeting was held to review and determine direction for I and D maintenance integration. The plan to proceed with consolidation of commands and integration of I and D maintenance was reaffirmed.

This document provides planning history and guidance for managers and support personnel for accomplishing the integration. The documents will be updated periodically to capture lessons learned and to communicate additional guidance.

2. Background

2.1 Regional Maintenance

In March 1994, the Chief of Naval Operations announced a Regional Maintenance Plan to streamline the Navy ship maintenance process, reduce maintenance infrastructure, maximize productive maintenance output and reduce maintenance costs. The end state of the Regional Maintenance Plan is to conduct Fleet maintenance using a single maintenance process. The Regional Maintenance Plan consists of three phases: 1) optimize Intermediate level maintenance interoperability, 2) integrate Intermediate and Depot activities, and 3) conduct Fleet maintenance using a single maintenance process.

The existing ship maintenance organizational structure in each region where Navy ships are homeported had evolved in the past to accommodate a much larger force level of ships than now exists. With the reduction in ship population, the maintenance activity staffing became smaller, but the facilities and organizational framework basically remained the same. The specialization, duplication and overlap existing in the different maintenance activities in a region limited the flexibility to best use the total maintenance resources available. A key element of the Regional Maintenance Plan is the consolidation of separate ship maintenance facilities in a region to eliminate these

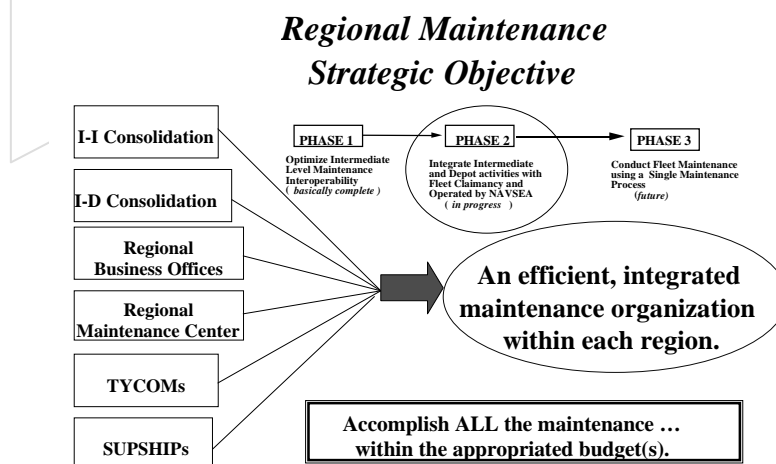
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limitations. The specific goals and objectives of the Regional Maintenance Plan are as follows:

- Emphasize process improvement while maintaining customer responsiveness and Fleet readiness
- Eliminate excess infrastructure capacity and capability
- Better integrate supply support and maintenance requirements
- Provide management visibility of all maintenance related costs
- Provide compatible AIS management across all levels of maintenance
- Preserve the requirement for positive technical control
- Reflect DOD and Navy core competencies policy

Personnel in various Fleet Concentration Areas have been meeting since 1994 to flesh out the details of a plan for Regional Maintenance. The overarching group that meets in the country, to pull together the efforts on both Coasts, is the Regional Maintenance Implementation Board (RMIB) now renamed The Fleet Maintenance Executive Steering Committee. The comprehensive list of Concepts of Operation they developed, and last approved on 26 June 1996, is included as Appendix A. It continues as the set of principles to guide implementation within any region in the country.

The following diagram illustrates the Regional Maintenance Plan and the three phases. Phase 1 is basically complete, Phase 2 is in progress, and Phase 3 was targeted for FY 2001, although that is no longer an achievable date due to a slower than anticipated pace of implementation. The Pearl Harbor Pilot was developed to demonstrate a concept of operations for consolidating I-level and D-level ship maintenance activities (Phase 2) to insure that the Regional Maintenance Plan goals and objective would be achieved.



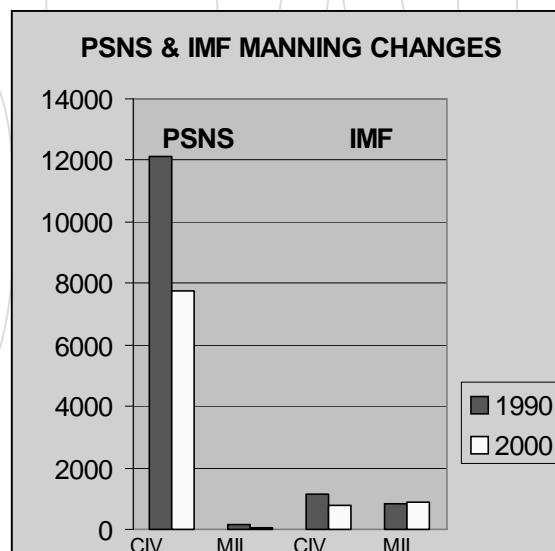
2.2 Northwest Ship Maintenance Activities

Navy ship maintenance in the Puget Sound area is being accomplished by two separate maintenance activities – PSNS and NAVIMFAC PNW (also referred to as IMF). Each is an individual command, with its own physical plant, organizational infrastructure and

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administrative support. PSNS is a Depot (D) level maintenance activity which is highly facilitized and whose primary work involves relatively lengthy and complex ship availabilities. NAVIMFAC PNW is an Intermediate (I) level maintenance activity with less capability (e.g. no nuclear license and only one drydock), and their workload consists of shorter, less complex but time-critical ship maintenance. In Fiscal Year 2000, there were 7780 civilians and 47 military on board PSNS, and 800 civilians and 899 military at NAVIMFAC PNW.

The two activities have different maintenance processes and funding systems due to the nature of their work, making sharing of resources and infrastructure difficult. PSNS is owned and operated by the Naval Sea Systems Command (NAVSEA) and funded under the Navy Working Capital Fund (NWCF). NAVIMFAC PNW is owned and operated by the U. S. Pacific Fleet (PACFLT) and is mission funded. Both activities have downsized over the last ten years as illustrated in the following chart of civilian and military resources in the Northwest region.



These activities, however, have had numerous successes over the years in terms of sharing for their mutual benefit. Some examples include:

Regional Repair Centers

- 11 IMF personnel (6 military and 5 civilians) merged with 17 in PSNS hosted RRCs (pump, motor)
- 1 PSNS mechanic with 6 others in IMF-hosted RRC (air compressor)

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- 22 Sailors have completed their Job Qualification Requirements (JQR) for the NAMTS NEC and 100 are currently enrolled

Personnel Loans and Borrows

- IMF platers assisted PSNS on weekend for USS KAMEHAMEHA (SSBN-642)
- 10 sandblasters and painters were loaned from PSNS to IMF
- PSNS borrowed 4 welders from IMF for USS ALABAMA (SSBN-731)
- Joint PSNS/IMF USS ALASKA (SSBN 732) D-5 upgrade project
- Standardization of Gas-Free requirements for tank entry
- Working together on three 5-month Trident Extended Refit Periods
- Using each others' X-ray sources for radiography to avoid having to transport between sites
- Sharing paint locker on the Delta Pier at IMF Bangor
- Joint Apprentice Program

3. Benefits of Integration

PSNS and NAVIMFAC PNW are two ship maintenance activities, both located within Kitsap County, Washington, only 18 miles apart by land. Both have excellent reputations within the U.S. Navy.

PSNS is a large Depot level activity with the capability to drydock, repair and modernize any of the 316 ships currently in the Navy active inventory, as well as recycling those currently in an inactivated status. Workers from this activity, however, also support repairs around the globe, including manning a Depot Maintenance Facility (DMF) for aircraft carrier work in San Diego, with up to 1000 personnel temporarily assigned in that region and assisting other Naval Shipyards, notably PHNSY & IMF with both industrial workers and management personnel.

NAVIMFAC PNW is an Intermediate level maintenance activity by designation, indicating a lower level of capability but, nonetheless, has demonstrated the ability to perform all but the most complex and massive ship repair and modernization. Although one-fifth the size of PSNS, in the local region they are geographically even more widely distributed, with primary facilities in Bangor for maintaining 8 Trident ballistic missile submarines and one Special Projects SSN, and in Everett for 6 surface combatants, and in Bremerton for 4 support ships.

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Over the past 20 years, since the establishment of the Trident Refit Facility at Bangor, the two activities have operated relatively independently, although sharing some personnel, facilities and equipment, and exporting some process improvements. As both activities have downsized and financial constraints have continued to tighten, the need for them to operate as one entity has become apparent to the Navy hierarchy. Only in this manner can the full potential of the industrial presence in the Northwest be realized. The benefits of such an integration/merger/consolidation are anticipated in a variety of ways.

3.1 Leveling Workload and Workforce

Every ship repair activity has peaks and valleys in its workload. Availabilities, even Trident Refits, are not spaced or overlapped in a consistent manner. Therefore, an activity like IMF may have one ship in an availability a particular week, and three the next week. At PSNS, the same holds true, even with Fleet Scheduling Conferences attempting to level load the activity as much as possible. For any availability, the loading is far from linear, with manning levels varying through the ripout, installation and test phases. When analyzed at the shop or trade skills level, the fluctuations are even wilder than when viewed for the activity as a whole.

Repair activities employ several techniques to match the workforce and the workload on a continual basis, including:

- Employing discretionary employees, e.g., such programs as on-call, term appointment, and stand-by, to pay those personnel only when their support is required
- Promoting training of personnel in multiple skills
- Shifting personnel between work centers, or shifting the work, where common skills exist
- Shifting work that has more schedule flexibility, e.g., some refurbishment of TRIPER components
- Taking advantage of workload valleys for required shop maintenance, employee training, and encouraging leave during those periods
- Borrowing or loaning with other repair activities, even those from other regions, albeit with attendant travel and per diem expenses
- Overtime
- Contracting to the private sector

However, even with all of these workload-workforce matching tools at their discretion, mis-matches still occur due to a limited number of personnel/work units available in each of the above categories. What is clear is that increasing the pool of personnel/work units being considered, enables the entire collective to achieve lower peaks and higher valleys. This is never clearer than when considering the “ones-ies”, i.e., unique but seldom used skills that may be resident in only a single individual in the whole activity, but when the same situation is combined with another organization results in an immediate doubling in flexibility.

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3.2 Sharing Good Ideas

A central theme found in high performance maintenance activities is striving to continuously improve performance through aggressive process improvement. It includes benchmarking with others doing similar processes to share good ideas, with the result that both improve, within the bounds of competition. That sharing is always facilitated when the walls are lowered, whether they be competition concerns, “not-invented-here” syndrome, or simply lack of communication. These walls can be lowered by activities that sincerely work as partners to do so, but are more readily lowered when they become one single activity. Under that setting, centralized management of various functions, e.g., sheetmetal locker manufacture, propels the processes together and promotes the sharing of ideas heretofore kept “in house”.

3.3 Sharing Working Relationships/Partnerships

Each maintenance activity establishes relationships with others to support them in accomplishing their mission. All those in the area may use some, like Commercial Industrial Services (CIS), but other partnerships are uniquely forged over years and years. Bringing both activities to the same table to accomplish a joint mission brings along the best relationships that both have established to be extrapolated across the larger organization.

3.4 Reducing Overhead

Every maintenance activity requires personnel in support roles, from secretaries to upper level managers. Often, these overhead personnel could provide services to a larger workforce, but are limited to those in the particular activity. In these cases, the redundancy in personnel performing similar functions at different but similar activities can be reduced. Two supervisors may be required in each activity when they operate independently, but when integrated, three could accomplish the same functions.

3.5 Eliminating Redundant Facilities & Equipment

Repair activities must each have the ability to perform ship maintenance functions. That has required some investment in facilities, equipment and tools unless that service is purchased exclusively from another public or private activity. This has resulted in similar facilities and equipment in the same geographical area; in the case of PSNS and IMF, only 18 miles apart. Many of these resources are only used a fraction of the time, making those in one location or the other redundant. Elimination of excess infrastructure not only saves on direct purchase costs but also cuts the cost of heating and cooling spaces, and curtails preventive and corrective maintenance to components by maximizing usage of facilities and equipment.

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3.6 Improving Training of Sailors

A cornerstone of the Navy Afloat Maintenance Training Strategy (NAMTS) is to capitalize on civilian craftsmen at shore maintenance activities to train Sailors who work in their areas during shore duty assignments. Gap analysis studies have shown that no single maintenance activity performs all of the skills required to be taught to Sailors to get their Battle Force Intermediate Maintenance Activity (BFIMA) Navy Enlisted Classifications (NEC). With more places to work and more civilian artisans available for training of any particular Sailor, the ability for Sailors to satisfy NEC requirements in their nominal 3-year tour increases. And any limitation imposed by concentrating all military in one location, e.g., a particular civilian mechanic may only be able to provide OJT to two Sailors, where three are available, is eliminated. Whereas currently the majority of Sailor training is conducted at Bangor, there are processes and equipment in use at Bremerton that are unique and state of the art, which will significantly expand opportunities to improve sailor maintenance proficiency.

3.7 Co-mingling Military and Civilian Workers

Any two individuals bring something different to the table based on their past experiences. In the case of civilian mechanics, this is especially true for those from different Naval shipyards, private companies and parts of the country, each bringing different practices and perspectives. Military and civilian workers are, by their very life style, considerably different. Even ex-military civilian workers benefit from those “fresh from the Fleet”. With most of the Sailors ashore for their first rotation from Sea Duty, they bring youthful enthusiasm and carry the message of concern from the operators. Integrating military and civilian workforces has been demonstrated to be beneficial to both.

3.8 Prioritizing Efforts across Both Activities

Within any maintenance activity, work is prioritized to meet the requirements of the large number of customers whom they simultaneously service. This prioritization is primarily accomplished at a work center level, where the particular trade skill involved is spread across the competing work so as to satisfy all the needs of all the customers on an urgency-of-need basis. At times of overload, a work center may be working on the highest priority items, while other high priority items go begging and are deferred until later. At this same time, the very same trade skill in another nearby maintenance activity may be doing relatively low priority work, due to the different needs of their particular customers at that particular point in time. Stepping back and looking at the region as a whole, the collective workforce of an integrated activity provide the flexibility to cover all the higher priority jobs, and fill in with those of lesser importance.

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3.9 Increasing Opportunities for Employees in a Larger Organization

Consolidating two organizations such as PSNS and the IMF will provide expanded work and develop opportunities for employees. In addition, the expanded skill base can be expected to relieve pressure on individuals to travel as a larger pool of volunteers will be created.

4.0 Concepts of Operation

The CONOPS signed by CINCLANTFLT, CINCPACFLT and NAVSEA in August 1999 contained 9 attributes for the Integrated Activity and is included as Appendix B. These are listed below, with a description of the effort required to realize each downstream state. Additionally, these 9 are supplemented by 6 other locally-developed items called Implementation CONOPS, which address items needed to realize a true integration of the two activities. 14 of these 15 “CONOPS” are schematically shown in Appendix D in Fishbone Diagrams, which depict the various elements that need to be addressed for each. The “bones” on each diagram are shown in roughly chronological order, and indicate those intended to be addressed prior to the Merge of Command (MOC), and those to be addressed further downstream. One item from the CONOPS that is not depicted in a Fishbone is “Accomplish All Maintenance”, since this was considered to be an overarching goal of the maintenance infrastructure in the Northwest, and the actions toward that end are all appropriately addressed under the other supporting CONOPS.

4.1 One Integrated Industrial Activity

A single leader characterizes an integrated organization. However, the integration must permeate the entire breadth and depth of the organization, such that all personnel see themselves as members of a single team working to a common goal. See Fishbone #1 in Appendix D.

4.2 Integrated Civilian and Military Workforce

Establishing a common manpower resource pool will help alleviate overload work periods of the individual organizations and, alternatively, minimize periods of inactivity in a particular work center due to lack of work. This sharing of resources across the entire activity includes all available workers, both military and civilian. With roughly a 50/50 split of military and civilians at the Bangor work site over the past 20 years, this region has the benefit of having already addressed the issues involved in this melding of workforces. Fishbone #2 in Appendix D.

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4.3 Financial Management

This attribute was called “Single Accounting” in the CONOPS, reflecting the plan to put both activities under a common financial structure, i.e., Mission Funding, as soon as possible. Subsequently, CNO directed that the transition be postponed to FY03. The activities in the NW will operate with mixed funding (NWCF and RMS) for approximately a year. See Fishbone #3 in Appendix D.

4.4 Tailored I&D Documents for Seamless Use

Workforce flexibility is increased as processes, training, and documentation are standardized. Standardization and workforce flexibility are major objectives being pursued across the full breadth of the Naval ship maintenance community because of the cost and resource savings that can be achieved. However, analysis quickly shows that while standardization, particularly of support processes must be maximized, work control, technical direction, records, and certification processes and documents must be tailored to specific jobs and work packages. A “tailored” approach is particularly important to prevent application of excessive controls which decrease customer service. See Fishbone #4 in Appendix D.

4.5 Standard Technical/QA Program

Consistent application of technical requirements and administrative controls throughout the integrated maintenance organization is required for optimum efficiency of all involved personnel. As I and D integration begins in the Pacific Northwest, work assigned to NAVIMFAC PNW will continue under Joint Fleet Maintenance Manual controls. Changes to JFMM controls will require CINCPACFLT approval and will be supported by thorough analysis. Even with multiple sources of higher level guidance, there is much to be gained by integration and standardizing the approach, training, processes, and practices used to manage the technical/QA programs. See Fishbone #5 in Appendix D.

4.6 Integrated Automated Information Systems

Computer systems are enablers for efficient processes, but have such a major impact that they are included as a separate item. See Fishbone #6 in Appendix D.

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4.7 Cost-Effective Utilization of Resources (Facilities and Equipment)

The parenthetical note was added to the title of this fishbone to clarify that it covers facilities and equipment, with the other key Resource, i.e., people, covered in 4.1 and 4.2 above. See Fishbone #7 in Appendix D.

4.8 Responsive Single Customer Interfacing Process

Service to the Fleet is a paramount consideration. Three major Type Commanders in addition to NAVSEA, Program Managers and other customers will compete for resources of the consolidated command. This requires a partnership where continual dialog, open communication and cooperation are the hallmarks. Public and private maintenance activities must be tied together, as well as all customers, including Type Commanders, NAVSEA, NAVICP, SUBMEPP, etc. See Fishbone #8 in Appendix D. The business office/customer interface functions within the consolidated command will be integrated and will establish a much closer working relationship with Supervisors of Shipbuilding and Type Commanders. In addition a Local Board of Directors, See Appendix F, will be established to assist with work prioritization and resource balancing.

4.9 Accomplish All Maintenance

This attribute of the CONOPS is considered to be the overall goal of the maintenance integration effort, i.e., accomplish all the required ship maintenance with the more limited funding available. If the maintenance infrastructure is organized and processes streamlined for maximum efficiency, we will be providing the best “bang for the buck”.

4.10 Measurement to Gauge Success/Progress

Performance measures are required to support managing change implementation and to ensure capture of gains. Performance measures will be established and used to manage/monitor the success of command consolidation as well as process changes for I and D integration. See Fishbone #10 in Appendix D and Appendix H.

4.11 Communication

Key to any change effort is the involvement of everyone affected by that change. This requires, then, a multi-faceted program of communication to distribute information and collect inputs on the myriad details of those efforts. See Fishbone #11 in Appendix D.

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4.12 Mission Accomplishment with Managed Change

Through the integration effort, responsive service to the Fleet must continue at the present level or better. A process is mandatory to ensure changes are well staffed, evaluated, and implemented. See Section 11 and Fishbone #12 in Appendix D.

4.13 Effective Facilitation/Oversight

Various levels of review as the integration proceeds will ensure that course corrections are provided in a timely fashion. Facilitation and project management leadership are provided by an Integration Management Team. Overall guidance and oversight are provided by the Maintenance Integration Oversight Team. Overall priorities for work and performance improvement after command consolidation will be provided by the Local Board of Director. Functional Area Teams are established to initiate and manage change in key cross organizational systems. See Section 7 and Fishbone #13 in Appendix D.

4.14 Training

The need for training permeates every aspect of the maintenance integration effort. To meet the objective of a fully integrated workforce with seamless use of work documents by all members of the workforce, initial actions have been directed at understanding differences between organizations and development of cross training. Full integration will occur incrementally as processes, format, and training are standardized and tailored for the work.

Of particular note is the objective to use work opportunities at the maintenance activity to provide training for Sailors while in their shore assignments that will prepare them for subsequent billets at sea. The intent is to fully integrate Sailors into the workforce and supervisory positions to provide skill enhancing experience. See Section 12 and Fishbone #14 in Appendix D.

4.15 Effective Material Process

Material is a key element of every repair or modernization task with the potential for controlling workflow and thus schedule. Material processes need to be optimized for the consolidated command. See Fishbone # 15 in Appendix D.

5.0 Consolidation Strategy

The consolidation strategy is driven by the goals, as discussed in the CONOPS, and tempered by comparison with similar efforts. Similarities and differences with the Pearl

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Harbor Pilot are discussed in Section 15.2, and lessons learned from that ongoing initiative are addressed in Section 15.3.

Based on the above, the following consolidation precepts have been established:

- Merge commands with few consolidation actions completed
- “As-is, Where-is” as the initial approach upon standup of a consolidated activity, vice a process where multiple changes are simultaneously invoked at that point
 - Critical IMF processes and procedures are “locked in” for the short term
 - Managed Change process is invoked for adoption of downstream changes (discussed in further detail in Section 11)
 - Improving joint processes is stressed, with some organizational structure and facility decisions postponed until later in the consolidation process
- AIS applications necessary for work control and financial management must integrate, in so far as practical with planned implementation of Navy Marine Corps Intranet and Navy Enterprise Maintenance Automated Information Systems.
- Two-year execution plan with risk mitigation strategy developed to chart the course and anticipate difficulties
- Two financial systems need to be effectively used in combination until the merged activity goes to a single system
- Initial focus is on:
 - Resource sharing
 - Integrating the workforce
 - Consolidating
- Performance measures will be developed to measure impact of consolidation of commands and process improvements for integration of I and D maintenance.

6.0 Mission of Integrated Activity

The Mission Statement of the consolidated activity is:

To provide depot and intermediate level industrial support through accomplishment of modernization, planned, corrective, and emergent maintenance, recycling, and associated maintenance to Navy ships; to execute the TRIDENT Class Maintenance Plan; to train Sailors in maintenance and repair of shipboard systems to meet the goals of Battle Force Intermediate Maintenance Activity (BFIMA) and professional development; and to perform such other functions and tasks as may be assigned by higher authority.

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7.0 Integration Management Structure

7.1 Northwest Maintenance Integration Oversight Team (NW MIOT)

The CONOPS called for an executive level group to be appointed by CINCPACFLT and COMNAVSEA to provide oversight and guidance during planning and implementation phases and the first full year of operation of the NW integrated activity. This group, known as the NW MIOT, began meeting with principals from the Northwest on 26-27 August 1999, and has met frequently since then, usually via VTC. The meetings are facilitated by the CINCPACFLT Northwest Regional Maintenance Center located at Puget Sound Naval Shipyard, (360) 476-0220.

Members include:

RADM D. E. Baugh	NAVSEA 04
RADM W. R. Klemm	CPF N43
RADM V. E. Smith	NRNW
RADM C. H. Griffiths	CSG 9
Mr. B. P. Clark	NAVSEA 04X
Mr. W. H. Ryzewic	CPF N43A
Mr. A. E. Tryon	NAVSEA 08X

7.2 Integration Management Team (IMT)

To coordinate the integration effort, the PSNS and NAVIMFAC PNW Commanding Officers established an IMT. The IMT currently consists of the following individuals:

Mr. C. Wood	PSNS
CDR E. Ingles	NAVIMFAC PNW
CDR S. Hyman	NW RMC

The IMT will:

- a. Provide leadership and coordination of the decisions and actions required to achieve the goals of the CONOPS and other guidance provided by higher command.
- b. Establish close working relationships and frequent communication links such that the integration project is planned and managed as a team.
- c. Use common project management tools and methods to the extent necessary for effective planning and management of the project.
- d. Ensure coordination between the Functional Area Team activities.
- e. Review key decisions by Functional Area Teams and advise or obtain policy guidance from higher authority. The IMT will identify issues and changes for review by the Senior Management Committee (see Section 11).

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f. Report project progress via the Commanding Officers of PSNS and NAVIMFAC PNW to the Maintenance Integration Oversight Team.

g. Develop consolidated mission and vision statements, Draft Memorandum of Agreement for NAVSEA and CINCPAC, change management process, organizational structure for the consolidated commands, and POA&Ms for Merge of Command and the transition period.

h. Provide local communication of plans and actions integrated with notifications and public information released by higher commands.

7.3 Functional Area Teams (FAT)

The PSNS and NAVIMFAC COs concluded that the best approach to pursuing the myriad of efforts required to bring together their two activities was through teams of subject matter experts. Starting in August 1998, 11 teams were established, and provided with draft charters. Six of these teams received CO approval of their charters, and continued to meet to pursue the anticipated process improvements. Efforts, however, languished as authority to proceed was lacking from upper echelons.

On 6 January 2000, with renewed emphasis on process improvement, the COs formally tasked the following five teams:

Engineering, Planning & QA Team
Resources Team
Training Team
Military Integration Team
Personnel Transfers/Employee Relations Team

The remaining teams, with the exception of Facilities, began working mid year.

To ensure that the teams work constructively to gather best practices from the two activities, each team is co-chaired by members of both commands. They alternate taking responsibility for meeting agendas, conduct and minutes, and alternate locations for the meetings. The team charters are included as Appendix E.

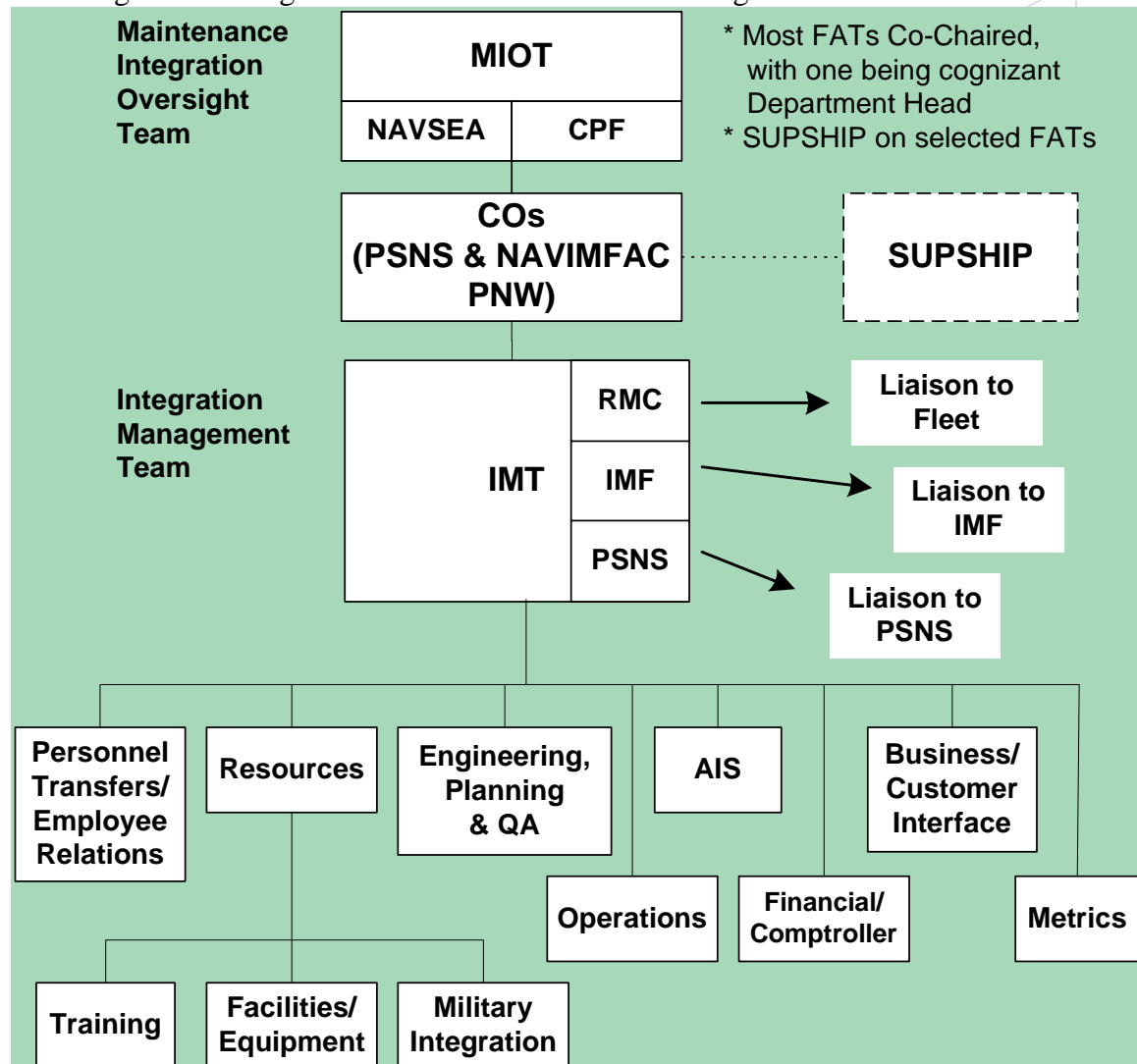
To prevent duplication of efforts between the inter-related teams, the IMT established several procedures:

- Teams prepare minutes of all meetings, endeavoring to capture all alternative views.
- Minutes are reviewed by a member of the IMT and subsequently posted on the NW RMC Web page (www.pnwrmc.navy.mil, Integration Information). In addition, they are distributed via e-mail to the COs, the IMT, all other team leaders and all members of that particular team.
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- Meeting schedules are similarly posted on the Web page, so IMT members, or others, can attend when desired.
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- Roundtable sessions are scheduled for all active teams to brief the IMT and each other.
- Some individuals are on more than one team, to provide further continuity of effort.

The integration management structure is shown in the diagram below.



A review of the formal integration structure quickly identifies that there are functions and organizations which can and should be integrated to maximize efficiency that are not represented by one of the chartered Functional Area Teams. Examples include: Cranes/Lifting and Handling, Public Affairs, Legal Services, and Environmental, Safety and Health.

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Managers of such functions are being contacted by the IMT to communicate guidance and arrange resources to accomplish the full integration objectives. If necessary, teams will be chartered for the period required to plan and implement change.

7.4 Northwest Local Board of Directors (NW LBOD)

As commands are consolidated and I and D level maintenance is integrated, an objective is to maintain or improve service and responsiveness to customer needs. To assure direct and frequent communication of maintenance facility business performance and customer needs, a Local Board of Directors (LBOD) will be established. The LBOD will provide customer input to work and performance improvement priorities.

The charter including membership is included as Appendix F.

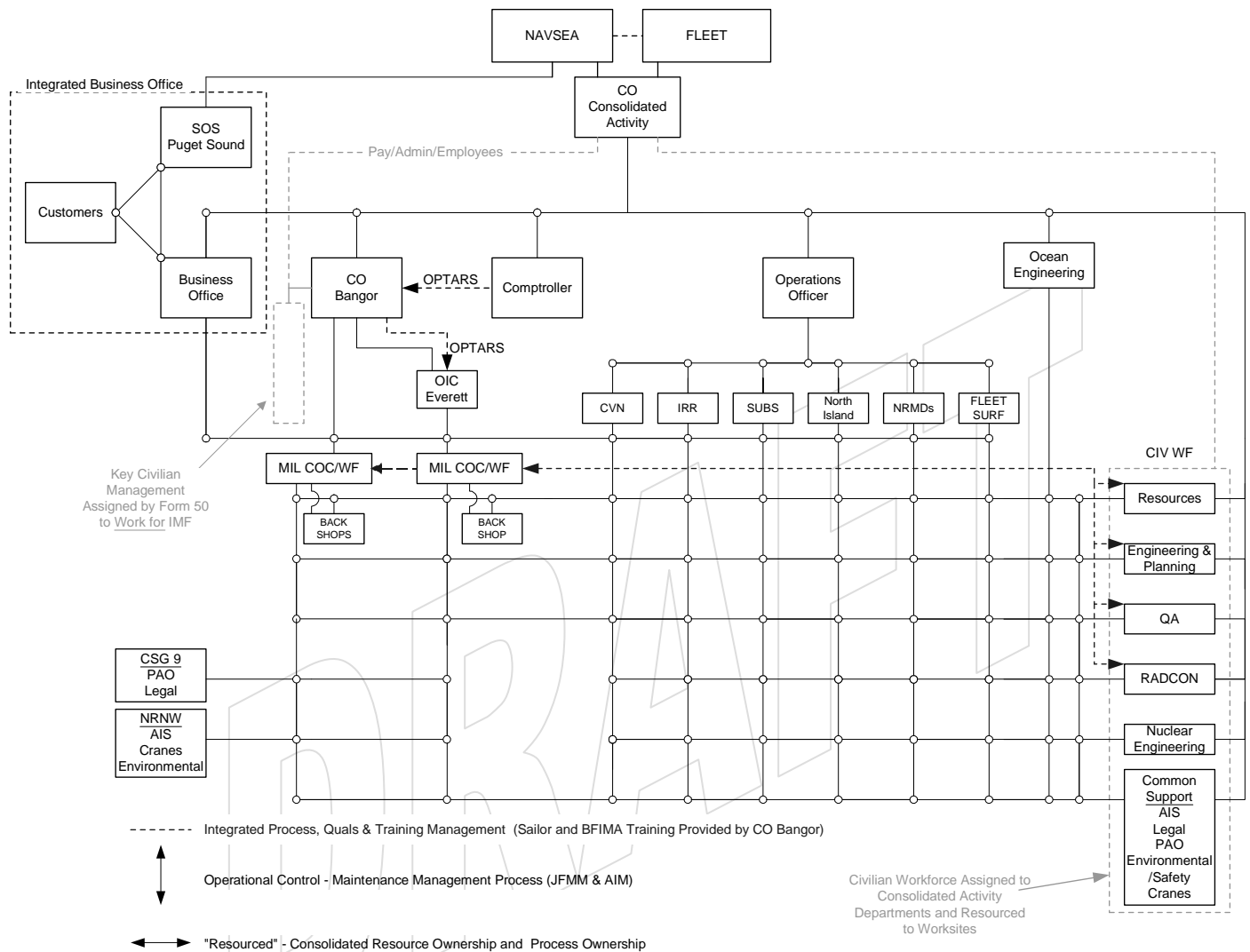
8. Unit Identification Code (UIC) Strategy

When PSNS and IMF consolidate, the IMF UIC (68438) will transfer to the CO of the consolidated activity. An existing but currently unused UIC (43751) will remain as the IMF UIC. All the current IMF civilian employees will transfer with UIC 68438 to the consolidated activity; military personnel will be reassigned to UIC 43751. IMF will retain command status but will report to the CO of the combined activity. The details of this strategy are included in the Draft Fact and Justification (F&J) and Briefing Sheet document which is Appendix G.

9.0 Organizational Structure

The high level organizational structure of the consolidated activity is shown in the diagram below. The details below this level are still being negotiated.

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10.0 Financial Plan

10.1 Background

A major element of the Pearl Harbor Pilot involved the shift of the entire combined activity to Mission Funding in order to provide increased flexibility through free flow of the integrated military and civilian workforce to all required work, without the restrictions imposed by accounting system regulatory requirements. A team of Navy financial experts, lead by a Navy Flag Officer, reviewed all accounting system options and concluded that Mission Funding provided the most flexibility for the Pilot while maintaining total and detailed cost visibility. Three other separate panels of Navy financial experts reached the same conclusion (Maintenance Support Quality Management Board Financial Working Group in 1995, CNO NWCF Study Group in 1998, and Fleet/COMNAVSEA Financial Review Group in 1999). Considerations leading to the conclusion included:

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- Mission Funding would best facilitate complete integration of civilian and military personnel in the workforce and provide the flexibility to free-flow personnel to any part of the workload.
- The productivity and performance improvement potential of a consolidated and mission funded activity, with complete workforce flexibility, is significantly greater than the improvement provided by the NWCF buyer/seller relationship between the maintenance activity and the customer.
- Comprehensive and total cost visibility would be achieved by continuing to use the PHNSY accounting system for the consolidated activity, interfaced to the Navy's centralized appropriated funding information system. The cost visibility would be the same as NWCF activities.
- During periods without appropriations, the flexibility provided by the NWCF corpus for NWCF funded activities to continue maintenance operation would extend only a few weeks. This limited NWCF flexibility was considered a minor factor compared to the overall benefits of Mission Funding for the Pilot.
- Under NWCF, facility capital improvements are planned and budgeted as part of the customer's cost for performing work. In Mission Funding, capital improvements are part of the appropriated funding budget and compete with other requirements. It was concluded that this important area in the Pilot would continue to receive the necessary priority and attention with COMNAVSEA as the operating agent of the Pilot; i.e. developing requirements, formulating the budget and acting as the capital improvements advocate.
- Removal of PHNSY from the NWCF would have minimal impact on the viability of the fund

A Navy decision was made to use the appropriated fund Resource Management System (Mission Funding) for the new maintenance activity (PHNSY & IMF), beginning in FY 1999. The PHNSY & IMF Report to Congress (May 18, 2000) stated, "The Resource Management System financial process provides the flexibility to move resources across projects without accounting restriction." In their June 9, 2000 Lessons Learned, they reported that Mission Funding has increased fiscal accountability but that there is a lack of funding to support the physical plant and not enough margin for growth on CNO availability's or large amounts of emergent work.

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10.2 Pacific Northwest

The accounting (financial) system used by PSNS is the Navy Working Capital Fund (NWCF), while NAVIMFAC PNW is funded by yearly appropriation (Mission Funding). It is expected that the consolidated activity will operate under a dual funding system for at least a year. There are legal requirements prohibiting mixing funding systems (use of mission funds for Navy Working Capital Funded activities and vice versa). The Comptroller is providing guidelines and training for managers who will have to apply rigorous control to maintain financial system integrity.

Time spent under dual funding will be minimized. The current expectation is that the PAC NW consolidated command will shift to RMS funding by FY03.

11.0 Change Management

At the Merge of Command, the functioning of the consolidated activity will largely be “as is, where is” i.e., wholesale changes are not planned on day one. With time, more will be learned about operating as a single organization and possible efficiencies and modifications will be identified and proposed. A formal change management process is necessary to ensure there is no loss of technical or operational control during the transition and to ensure changes result in overall improvement to operations after consolidation of the two commands. The following guidance and diagram present the Change Management Process that will be used.

Guidance:

1. Organizational managers and Functional Area Teams are responsible to identify improvements (changes) which will move the consolidated command in the direction of the overall integration objectives. These improvements may relate to processes, organizational structure, personnel assignments, leadership systems or any other part of the consolidated command systems and activities.
2. As changes are identified which are related to the integration of I&D maintenance, and more specifically consolidation of PSNS and NAVIMFAC PNW, the process shown below will be used to evaluate the level of approval and notifications required. Note that this process does not replace nor interfere with standing requirements at the two commands or from higher authority for approval of changes. The diagram is to be used in parallel with standing change controls to ensure the effort to consolidate proceeds in an orderly and efficient manner.
3. The basic principle to be followed in change planning and implementation is that we are working to merge two similar but different systems. Systems management requires that we recognize that people, organizations, and processes work together as a system. Therefore, the impacts of a change on all parts of the system must be considered and monitored during planning and implementation. Accordingly, managers and teams

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are expected to perform thorough analysis, communicate with impacted stakeholders, and implement integrated solutions that result in overall improved performance.

4. As a general rule, it is intended that decisions be made as low in the organization as possible. The change process requires managers who are planning change to evaluate the impact and gain higher authority approval when disagreement occurs, impact is significant or integration objectives are not fully supported. Point papers will be prepared, including pro and cons, for proposals forwarded for higher review. The intent of the higher review will be to ensure there is no loss of technical control and that overall improved operations are achieved.

5. Two Committees are established to support the Managed Change and Approval Process:

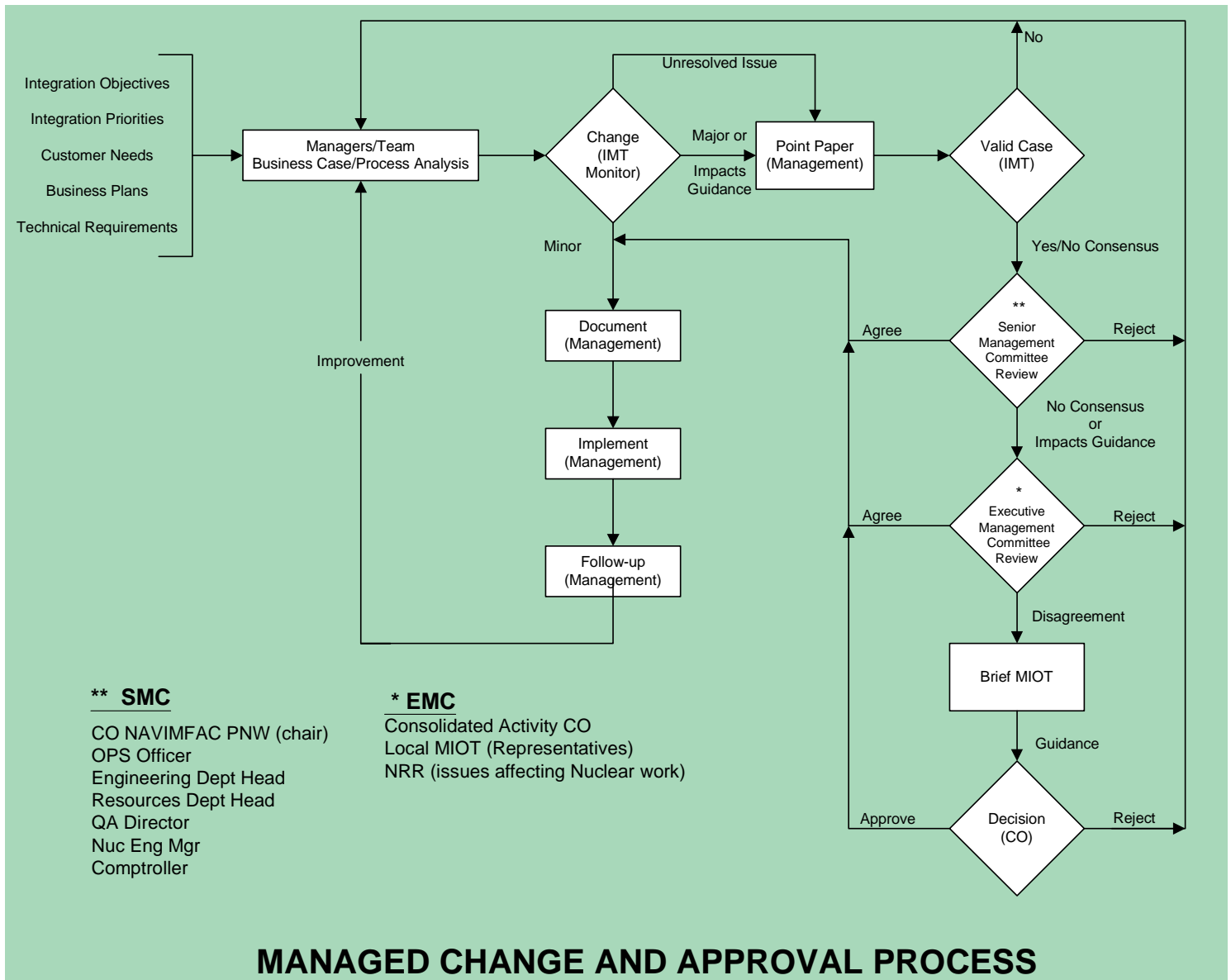
a. A Senior Manager Committee (SMC), with the membership indicated in the diagram, will evaluate high impact changes or issues upon which the managers cannot agree. The IMT will first evaluate whether a valid case has been made for a change and, if not, return the proposal to management for clarification. The IMT will then forward the proposal to the SMC for review action.

- 1) The Commanding Officer NAVIMFAC PNW will chair the SMC.
- 2) The SMC will operate without substitutes. If consensus cannot be readily achieved, the issue will be referred to the EMC.
- 3) The SMC will keep summary minutes of actions taken with key reasons for actions documented. Minutes will be distributed to members of the SMC, IMT, and EMC and other managers as appropriate.

b. An Executive Manager Committee will be formed as listed in the diagram to provide decisions for issues referred by the SMC. In addition, the EMC will meet to discuss issues and decisions made by the SMC which are of concern to any of the members. If the EMC cannot agree on the resolution of an issue, the consolidated activity Commanding Officer will brief the MIOT on the issue to obtain their guidance prior to making a decision.

6. As implied above, managers are expected to apply rigorous business case and process analysis methods, appropriate to the issue, prior to recommending change. Likewise, rigorous methods for implementation of change, performance measurement, follow-up, and adjustment are expected. Methodology is beyond the purpose of this document and is readily available within the commands. If assistance is needed and cannot be found, contact the IMT.

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12. Sailor Training

The Navy Afloat Maintenance Training Strategy (NAMTS) is the Navy program designed to improve the skill and proficiency of Sailors in maintaining their ships at sea. Previously, Sailors received formal and On-the-Job training on Tenders and while on their shore assignments. However, there was no integrated approach for qualification and training of maintenance personnel, and the emphasis was on production vice training. NAMTS established a set of 20 Job Qualification Requirements (JQR), wherein Sailors receive training, demonstrate proficiency and are awarded a special Navy Enlisted Classification (NEC). These NAMTS NECs then form a subset of the Battle Force Intermediate Maintenance Activity (BFIMA) skill areas necessary for sustaining the deployed Fleet.

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In the Northwest, NAVIMFAC PNW is the coordinator for the region's NAMTS program. It involves training by both military and civilian craftsmen, with specific individuals certified to sign off the various parts of the JQR (qualification card). Currently there are 100 Sailors enrolled in NAMTS training and 22 have completed training and have been awarded their NECs.

As noted in Section 6 in the Mission Statement, the training of Sailors is a primary mission of the integrated activity. Two of the Functional Area Teams with taskings listed in Appendix E are involved in developing a comprehensive program that best meets the needs of the maintenance activity and the Sailors. The Military Integration Team and the Training Team will work together to determine the optimum method for employing and training these Sailors across the various maintenance sites (Bremerton, Bangor and Everett), ensuring that they receive challenging, useful, and career enhancing assignments.

13. Metrics

13.1 Pearl Harbor Pilot Metrics

The Pearl Harbor Pilot established the following nine metrics, each designed to assess important aspects of the business of ship maintenance, and, together as a whole, evaluate overall effectiveness of the Pilot.

Metric 1: Cost per Unit Output

- Total cost of a Production Shop Direct Manhour of work delivered. Objective is to provide total cost visibility of a Production Shop Direct Manhour.

Metric 2: Production Efficiency and Resource Utilization

- Total activity labor hours expended to deliver a Production Shop Direct labor hour. Objective is to assess effectiveness of personnel resource distribution and utilization.

Metric 3: Maintenance Actions Completed

- Total Consolidated Ship's Maintenance Project (CSMP) work item throughput. Objective is to determine the total CSMP work items completed.

Metric 4: Material Readiness of the Pearl Harbor Based Ships

- Total Consolidated Ship's Maintenance Project (CSMP) work item backlog. Objective is to monitor change in the material readiness of Pearl Harbor based Surface ships and Submarines.

Metric 5: Customer Satisfaction

- Availability Schedule Adherence. Objective is to measure degree of adherence to CNO scheduled availability completion dates.

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Metric 6: Quality

- Activity Depot Work Quality. Objective is to determine an activity depot work quality index by analysis of rework and the total size of the depot work completed.

Metric 7: Schedule Integrity.

- Objective is to determine an activity work schedule integrity index by analysis of the budgeted allowance of work scheduled and actual amount of work performed.

Metric 8: New Casualty Reports (CASREPS).

- CASREPS attributed to activity work during availabilities. Objective is to determine post availability equipment failures resulting from activity work performed during an availability.

Metric 9: Earned Value.

- Analysis of selected similar work items using a statistical technique. Six to eight percent of the activity workload would be included.

Each of the metrics measures different aspects of the Pilot operation, thus all of the metrics must be considered together as a whole to evaluate overall effectiveness of the Pilot. Metric 1 measures the total cost of production work performed. Metrics 1 and 2 take into consideration data for all Intermediate as well as Depot level work and workers. These first two metrics are considered key assessment metrics and weigh heavily when evaluating the Pilot. Metrics 3 and 4 are geared towards measuring aspects of Intermediate level work and metrics 5 and 6 are geared towards measuring effectiveness in completing Depot level work. An expected performance target was specified for each of the first six metrics.

13.2 Northwest Maintenance Integration Metrics

The Northwest region has placed high importance on the establishment of metrics designed to fully measure the progress and assess the effects of consolidation. This meant that meaningful metrics needed to be established and institutionalized in the areas of: Quality, Cost, Schedule, Throughput, Customer Satisfaction, Workforce Development and Quality of Life for both activity employees and forces afloat.

A Functional Area Team (FAT) comprised of personnel from the shipyard and NAVIMFAC was established to conduct metric research and evaluation, and to develop metrics for PACNORWEST consolidation. The Team reviewed and explored literally hundreds of possible metrics. Particular attention and consideration were given to the Pearl Pilot Metrics and lessons learned as reported in numerous audits and evaluation reports, metrics currently in use by the shipyard and IMF, and metric information provided by the Mid-Atlantic region.

As the FAT advanced its knowledge and thinking, three precepts emerged that were used in the development and selection of the region's consolidation metrics. They are:

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1. View the end product as a “Performance Plan.” Look at the performance metrics as a “family” instead of attempting to reach performance conclusions by looking at any one metric in isolation. Or, said another way, look at the performance picture portrayed by the full set of metrics instead of attempting to determine the picture from a single indicator.

2. Distinguish between “Business Performance” metrics and “Consolidation Performance” metrics. The primary intent is to measure and assess the effects of consolidation. Therefore, minimize business metrics in the consolidation performance plan to those necessary to ascertain the affect consolidation is having on overall business performance. (Note: The full range of current shipyard and IMF business metrics will continue to be maintained and used – but not totally included with consolidation metrics.)

3. Look at the metrics from the perspective of each of the major stakeholders (e.g. NAVSEA, Fleet, Operators, Comptrollers) to ensure that the performance plan measures those things that are of high importance to each.

Using the precepts described above the FAT selected a total of approximately fifty consolidation metrics grouped in the categories of Quality, Cost, Schedule, Throughput, Workforce, Customer, and Facilities. Taken in total, these metrics comprise the PACNORWEST Regional Consolidation Performance Plan (Appendix H). A “top tier” of metrics was selected from those metrics within the total Plan as having primary importance to consolidation stakeholders and will be used as the “Executive Summary” metrics. The Executive Summary metrics are shown in the table below.

TOP TIER PACNORWEST REGIONAL CONSOLIDATION METRICS

1	Total Cost of a Production Shop man-hour delivered
2	Full Disclosure - Total Cost Navy
3	Quality Performance Indicator (QPI) & Deficiencies per Month by Category
4	Schedule Adherence (CNO & FMAV)
5	CSMP Open Items (Homeport Ships)
6	Overdue Planned Maintenance
7	Total Labor hours expended to deliver a Production Shop man-hour
8	Employee development and quality of life (Military & Civilian)
9	Customer Satisfaction – Responsiveness, Quality, Quantity, Operator QOL

14. Action Plan

The first step in developing a plan of action for the Northwest I&D integration was to brainstorm all the steps that would be required. This was accomplished by using fishbone diagrams. Each “skeleton” was an objective identified from the CONOPS. Each “bone” was an action required to meet that objective. The fishbone diagrams were scrubbed by the appropriate teams. The fishbone diagrams are included as Appendix D.

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The next step was to convert the fishbone diagrams into a POAM that could be used to manage the integration. Each FAT was assigned to develop a POAM for their respective area using Microsoft Project software. The IMT POAM consists of the high level actions that are required to consolidate. We are in the process of tying the other teams' POAMs to the IMT's. Up to this point, the emphasis has been on actions required to prepare for the Merge of Command (MOC). Now we are also working on the transition period which will follow the MOC.

15. Pearl Harbor Pilot Lessons Learned

15.1 Overview

On 30 April 1998, the two activities merged and became the Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY&IMF). On 1 October 1998, the transition was made to mission funding, and full Pilot operation commenced.

The Pearl Harbor Pilot is a major undertaking and represents a major change at the local and national level. The new activity, the PHNSY&IMF, is undertaking a broader scope of work than the two previous activities and is challenged daily to manage the maintenance resources across the full spectrum of I and D level work with the priorities shifting frequently to support the Fleet's operational commitments. The management and budget process now involves two parent commands with CINCPACFLT as the claimant and COMNAVSEA as the operating agent and technical authority. The Pilot has been successfully operating for almost three years and has generated many lessons learned for the Navy. These lessons learned will be invaluable as Phase 2 of the Navy's Regional Maintenance Plan is expanded to other regions, including the Northwest.

Further, the goals and objectives for demonstrating the Navy's Regional Maintenance Plan were achieved. The Pilot consolidation of all maintenance resources has provided the structure and organization to perform Fleet priority work in homeport while retaining the smallest possible total workforce. Workforce flexibility has exceeded expectations as demonstrated by the ability of the activity to respond to changing warfighter maintenance requirements and priorities. The maintenance infrastructure has been reduced, and customer satisfaction as measured by schedule adherence has improved.

As the magnitude and breadth of change inherent in the pilot were significant, various problems and challenges were experienced. None were debilitating. Maintenance execution continued without disruption, costs decreased and the amount of maintenance performed increased. Many lessons learned were generated which will be incorporated in other regional consolidations.

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15.2 Comparison of Regions

Maintenance professionals have acknowledged that each region of the country, while similar in many respects, also differ in key areas. Accordingly, the lessons that are learned in one region need to be carefully evaluated for export to another region, and tailored as appropriate.

Similarities between the Northwest and the Pearl Harbor Pilot include:

- Similar concepts of operation
- Similar workforces
- Similar material support
- Similar expectations for responsiveness and mission accomplishment
- Similar expectations of downstream savings and increased efficiency
- Same goal of going to a single financial system

Major differences in the Northwest as compared to the Pearl Harbor region include:

1. Merging of essentially two “Depots”, vice a “Depot” and an “IMF”
2. Bangor 18 miles North of Bremerton, and Everett is a 2-hour commute (including a Ferry ride), vice ½ mile apart
3. Bangor supports an active SSBN squadron in the region
4. The Bangor facility was “purpose built” to support the Trident Fleet and the Trident Maintenance Process
5. Significant off-site workloads
 - IMF @ Everett
 - PSNS @ Boston (Planning Yard)
 - PSNS @ Pt. Loma
 - PSNS @ North Island
 - PSNS @ Pearl Harbor
6. Logistics Data System (LDS) at IMF is a mature/well refined and supported AIS system supporting Trident submarines on both coasts
7. Significantly different workload mix:

Puget Sound

Trident Submarines

Aircraft Carriers

Surface Ships

SSN 688 Class Submarines

Reactor Servicing

Inactivation, Recycling, Reactor Compartment Disposal (IRR)

Planning Yard

USS PARCHE (SSN 683)

NRMD

Pearl Harbor

SSN 688 Class Submarines

Reactor Servicing

Surface Ships

NRMD

8. Significant pending changes in the workload mix:

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PSNS

Reduced IRR
Increased Submarine workload
D-5 Conversions
Trident & 688 Refuelings
Increased workload in San Diego
Increased Surface Ship workload
Decreased Planning Yard

IMF

Decreased Trident force

9. More Private Sector ship maintenance in Puget Sound than Hawaii
10. Significant previous regional consolidation efforts
 - Regional Repair Centers (Pump, Periscope, Circuit Breaker, Motor, Regional Dive Locker, Calibration, Air Compressor)
 - Human Resource Service Center consolidation
 - Regionalization of AIS, Cranes, Public Works, MWR, Port Operations
 - Shore Intermediate Maintenance Activity (SIMA) Everett and TRF Bangor consolidated into NAVIMFAC PNW on 24 Nov 98
11. NAVIMFAC PNW (Bangor site) already has fully integrated military and civilian workforce across entire organization
12. Four major Unions in Puget (Bremerton Metal Trades Council (MTC), International Federation of Professional and Technical Engineers (IFPTE), Planners and Estimators, Progressmen and Schedulers (PEPS), and International Association of Machinists and Aerospace Workers (IAM)) vice only one major Union in Pearl Harbor

15.3 Lessons Learned

Some of the more noteworthy lessons learned being reported by the Pearl Harbor Pilot in their Report to Congress include: [after each is the Northwest's plan on how to capitalize on Pearl's experience]

- Co-location of FMA Project Personnel with Customers and Stakeholders

For the short, intense Fleet Maintenance Availabilities (FMA), previously accomplished by the NAVIMFAC, all parties associated with FMA work were collocated; PHNSY&IMF project personnel, customer maintenance personnel, ship representatives and anyone else associated with the work. This close proximity created a positive synergy and reduced coordination, work definition and work assignment lead times.

[Co-location is already the case for Trident refit work at Bangor, not all in a single office or even building, but all at Bangor nonetheless. This includes the IMF Business Office, Squadron Seventeen Engineer, and the Performance Monitoring Team. For shipyard CVN availabilities, similar synergies are accomplished by the Business Office being in the same building as the CNAP Maintenance Managers, with a FTSCPAC detachment also in yard. Surface ships in Everett have Port Engineers and Intermediate Maintenance Activity Coordination Center (IMACC) personnel in the same office on the Naval Station, and SUPSHIP nearby in rental quarters in Everett. Surface ships in Bremerton similarly have Port Engineers and IMACC in the same office, and in the same building as the SUPSHIP detachment. Further efforts to tie together these local offices, as well as

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the parent Type Commanders and such off-site efforts as San Diego, will continue to be pursued. For one, the Business/Customer Interface Team is developing a concept for a Regional Business Office.]

- Military Personnel Integration

Two major problems were experienced in properly integrating military personnel into the consolidated maintenance organization. These were 1) delays in placing senior, qualified sailors in supervisory positions and 2) providing for an unbroken military chain of command in the Project Management operational organization. Placing senior military personnel, particularly Chiefs, in supervisory positions has been a slow process that should have been more aggressively managed. In addition, the mechanism for maintaining a clear military chain of command for a sailor assigned to a production Project from the Resource Department (Project Management *modus operandi*) was not clear. The sailor had an established chain of command in the Resource Department that sometimes disappeared when assigned to a Project. Both of these problems were recognized and are being resolved.

[As noted in Section 15.2, this is one of the major differences between Pearl and the Northwest. For some 20 years, IMF (previously TRF) Bangor has operated with an integrated military/civilian workforce. While there is a continuing effort to ensure that is “done right”, the code has been broken in this region. What remains is to ensure that any export to other parts of the region, e.g., Bremerton and Everett, addresses all aspects of the much more comprehensive lessons learned available from two decades at Bangor. Following a visit to Pearl in September 1999, the Northwest was concerned enough about this area to establish a separate group, the Military Integration Team, to specifically address this important area.]

- Automated Information Systems (AIS)

There were a myriad of lessons learned in the AIS area, which were not unexpected. Construction of an analytical model to identify all potential problems during the Pilot transition and startup was not realistically feasible, and a conscious decision was made to learn through experience. None of the problems were fatal, and a wealth of information for use in other regional maintenance consolidations was generated. Although these problems generated concern in budget and information system offices inside and outside of the activity, they were transparent to those performing the maintenance and had no impact on the production output. In spite of the many problems, it should be noted that end-of-year reconciliations were successfully completed at the end of the first full year of mission funding.

[From the beginning of discussions in the Northwest, it has been obvious that the choice was not between PSNS systems (e.g., AIM) and IMF systems (e.g., LDS), but rather how to link systems where that enabled process improvements. For example, early on when IMF pulled together surface ship and submarine I-level work, a bridge was established between MRMS P6 for brokering surface ship work and LDS for planning that work. The functionalities available in these maintenance systems are well understood by AIS and functional personnel involved in both activities, and are being incorporated in the

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planning efforts for ERP (Enterprise Resource Planning), in which both activities are participating. Nearer term than ERP, there are improvements in this region that will be addressed by the AIS Functional Area Team, i.e., integrated workload forecasting, integrated tool issue, and integrated scheduling.]

- Tailoring of the Maintenance Processes

One of the elements in the CONOPS was use of standard work documents. However, it became apparent that a degree of flexibility had to be built in for level of detail in procedures, planning and tracking processes. It was necessary to provide the ability to adjust and fine tune maintenance processes, based on the complexity of the particular work being performed.

[The Engineering, Planning and QA Team, co-chaired by leaders from PSNS and IMF, is actively pursuing this effort as part of their tasking. They have acknowledged that overall the technical requirements for different jobs are the same for both activities, with major differences instead in the job formatting, material ordering, work breakdown and planning systems used. Together they are working to minimize the effort to re-plan work packages that were previously prepared and approved, while at the same time ensuring they support their primary customer, the mechanic on the deckplates.]

- Resource Allocation

Under Project Management each major project, including the submarine and surface ship Fleet Maintenance Availabilities (FMA), is assigned a small core of production workers. The remainder of production workers is assigned to the Resource Department and constitutes a pool of skilled labor. As a project work profile changes, the Resource Allocation Program (RAP) augments the project core with personnel of the required trade skills or decreases the manning level. Integration of military and civilian personnel was facilitated by placing all production military personnel, without distinction, in the RAP.

[The plan for the Northwest is that the workforce dedicated to Trident submarine work will be retained with that as their top priority. The need to “grow” submarine talent in the region for future scheduled work in Bremerton, however, also calls for flowing some number of personnel between these two locations to increase the number of workers qualified to the unique requirements of these platforms, thereby satisfying all the needs of CSP, both SSBNs and SSNs.]

In a separate summary of Lessons Learned distributed in March 2000, the Pearl Pilot listed the following 11 as most significant (some of which duplicate the preceding list): [again, after each is the Northwest’s plan on how to capitalize on Pearl’s experience]

- ❖ MEO (Design and populating)

- The design and positioning of billets in the Most Efficient Organization for each Department to the working level requires command attention to optimize opportunities for efficiencies.

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[This area has been consciously pushed to the back burner, instead concentrating on functional processes, with them guiding reorganizations within functional areas. One advantage in this region over Pearl is that the Human Resources Office is already regionalized and, hence, already in a good position to facilitate the two activities through that effort. We will, however, avoid use of the terminology “MEO”, as it signifies a finality to that effort which we do not acknowledge.]

❖ **Union Survivorship/Partnership (IMF was non-union)**

- Consolidation, singling up UIC, changing activity name, etc., must not cause a new election of representation.

[Personnel in the two Northwest activities are represented by one of several Labor Unions, so the situation is different than Pearl. This may well result in some changes in representation as we integrate activities. Management of both activities and the Human Resources Service Center will work with them through that process, as they consult with the FLRA.]

❖ **Pre-engineering Process Changes**

- Need to develop and “test” key processes before implementing changes or severe re-implementation will occur.

[Two elements work in our favor in the Northwest in this area. First, we do not feel the urgency, due to budget cuts or other influences, to push changes out before they are properly staffed. Accordingly, changes will be rolled out in an incremental fashion vice many simultaneously as was the case at Pearl. Second, we will use the Managed Change Process detailed in Section 11 to pursue implementation, and thereby ensure we have taken all eventualities into account.]

❖ **FMA under “Total Project Management” with Common Resource Pool**

- Bringing FMA under total PM provides the maximum flexibility in the allocation of the resources from the common pool.

❖ **Local Board of Directors, LBOD**

- Monthly meeting of Fleet, NAVSEA field representatives, Naval Reactors, both Surface and Submarine maintenance managers, Squadron Commanders, and PHNSY & IMF provides the forum to discuss priorities, workload, funding and other mutual areas of concern.

[A similar group will be established in the Northwest, as discussed in Section 7.4 and already approved in concept by the NW MIOT.]

❖ **Collocation of FMA Project Teams with Customer N4s**

- Places the maintenance requestors side by side with the maintenance providers and promotes exact definition of work required and other important information as it is passed face-to-face.

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[Discussed in previous grouping of Lessons Learned.]

❖MIMS (AIMx)

- Both legacy PHNSY & IMF work document ADP systems required modification to provide a work document that was understandable to workers moving between both types of availabilities.

[The Engineering, Planning and QA Team has already had mechanics review work documents for each others' activity, and found them to be technically equivalent, and, therefore, provide adequate technical direction to properly accomplish the work. IMF is nearly complete converting their Master Job Catalog file to MS WORD, and PSNS is converting their Task Group Instructions to WORD this year, so they will be compatible. Therefore, it has been agreed that only minor training is needed for mechanics to use either activity's technical work documents. The ERP system is expected to envelop them both which will then limit computer work-arounds.]

❖Work Control and Ship Safety at the FMAs

- Control of ship systems and safety of ship during fleet maintenance upkeeps were not as stringent as depot requirements.

[Currently some requirements in the Joint Fleet Maintenance Manual (JFMM) are actually more restrictive than NAVSEA requirements, e.g., JFMM requiring QA review of work documents before issuance. The approach in the Northwest, using the Managed Change approach in Section 11, will be to export those increased or relaxed controls to those areas where it makes sense.]

❖Tailoring Shipyard Processes (60 RPM) to the FMA pace (1200 RPM)

- Movement of resources and other process, e.g., work induction for FMA maintenance could not tolerate the shipyard processes which were slow and cumbersome.

[Foremost here is the acknowledgement that processes are not all "fast" at IMF and "slow" at PSNS, but rather are tailored to the work in question. Thus, each activity already has various gears travelling at different RPMs, and the activity as a whole will continue to do so. Where "Maytag repairman", "Johnny-on-the-spot", "Just in Time", or any other variations of support is warranted and found to be the most cost-effective, that is what will be institutionalized for that specific work item. In all cases, exporting one process to replace that used in a different work site will be done using the Managed Change Process described in Section 11.]

❖Full time Transition Team

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- A full time transition team that provided full time guidance, direction, and problem resolution aided in implementation. The Prospective CO should be the leader of the Transition Team.

[Dual claimancies (NAVSEA and CPF) precluded this approach in the Northwest, i.e., putting one individual in charge in advance of the integration. Rather, PSNS and IMF both contributed personnel to the effort, with NW RMC acting as staff/facilitator. While this prevented the “Transition Team” from providing direction, it did encourage reaching consensus that took into account the views of all concerned.]

❖Deputy Activity Commander

- Provides the necessary sounding board for the COs under availability and to handle all of the military matters not common to a shipyard.

[In the Northwest Region in recognition of the criticality of the accomplishment of the Trident Maintenance Plan, the CINCPACFLT message of 13 June 2000 (Appendix C) specified, “A commanding officer (O-6), 1120 designator, reporting to the consolidated activity commanding officer, will be established at the Bangor site. Duties assigned to this billet will include oversight of all work at the Bangor site.” The specifics of how that arrangement will be implemented in the day to day operations of the consolidated activity is yet to be defined.]

Additionally, personnel from the Northwest visited Pearl in September 1999, and took away the following as Pearl’s view of lessons learned:

1. Organize with a Single Operations Department.
2. Single-up as much as practicable (backshops, overhead, processes).
3. Develop a new Strategic Plan early in the integration effort, using selected mid-level stakeholders.
4. Establish a full-time Implementation Team (approx. 10?), with a large number of other Teams (Pearl had 186 members at one point) spending a good percentage of their daily time on the effort, and with many team members co-located.
5. Pre-engineer process changes before implementation.
6. It is better for mechanics to work off “similar” paper (format, content, process).
7. Involve Union representatives.
8. Spread military personnel across the entire organization for training, but provide a strong chain of command structure for Sailors.

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9. Communicate to employees!!
10. Start F&J early.
11. Keep separate induction process for FMA work, but co-locate those involved in the FMA process.
12. MUST have an AIS system that supports Mission Funding!
13. Co-locate Deputy with Commander.
14. Develop a complete set of Metrics.
15. Keep a “core” of people at the FMA, sized to the level of the valley of projected workload. Attempt to return those released from other projects when work is done.
16. Operate FMA under Total Project Management.
17. The Resource Allocation Process applies to ALL disciplines.
18. Centrally manage all Engineering & Planning personnel and processes. Maintain a stable group of Engineering & Planning personnel at the FMA; don't pull all planners from the waterfront to a central location.
19. Resolve, prior to change of command, major differences in routine processes, such as:
 - a) Crane and rigging rules
 - b) Electrical safety
 - c) Welding
 - d) Personnel tool issue
 - e) Accounting for military working hours
 - f) Qualification requirements for selected work skills
 - g) Timekeeping systems
 - h) Selected instructions & notices, training programs, and licenses & permits.
20. Develop a facility consolidation plan, considering plans for singling up various functions.
21. Need to educate civilians (supervisors and workers) about the military, e.g., GMT, PRT, sick call, leave, liberty, etc.)
22. The workload will increase for the shipyard Engineering organization as some waivers and deviations go through them.